



Oregon

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August 29, 2011

Also Sent Via E-mail

Tom McCue, Environmental Manager
Siltronic Corporation
7200 NW Front Avenue
Portland, OR 97210

**Re: Gasco Sediment Project - Landfill Worker Exposure Scenario
Siltronic Corporation
Portland, Oregon
ECSI No. 183**

Dear Mr. McCue:

DEQ reviewed the "Recommended RBCs for Certain CVOCs for Characterizing Dredged Sediment from Gasco Sediments Site Pursuant to Statement of Work" memorandum dated January 13, 2011 (Memorandum). DEQ understands Maul Foster and Alongi, Inc. prepared the Memorandum for Siltronic Corporation (Siltronic).

The Memorandum proposes health-based criteria (i.e., risk-based concentrations [RBCs]) for use in determining whether sediments dredged from the Gasco Sediments Site; contaminated only by chlorinated volatile organic compounds (cVOCs), contain a listed hazardous waste. The source of the cVOCs which include trichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, and vinyl chloride; is a former solvent underground storage tank system (Former UST System) used at the Siltronic facility from 1980 through 1984. DEQ previously determined releases of cVOCs from the Former UST System are a RCRA F002 listed hazardous waste.

NW Natural and Siltronic entered into the "Administrative Settlement Agreement and Order on Consent for Removal Action No. 10-2009-0255" (AOC) with the Environmental Protection Agency in September 2009. The Statement of Work (SOW) attached to the AOC includes excavated and dredged material management requirements. As indicated by Section 3.6.3.1 (Material Disposal Requirements) of the SOW, the determination of whether sediments impacted only by cVOCs contain F002 listed hazardous waste will be based upon DEQ-approved RBCs for the incidental ingestion, dermal contact, and inhalation pathway developed under a landfill worker exposure scenario. For purposes of the SOW, landfill workers were considered representative of the group with the highest potential risk of exposure to excavated and/or dredged material. If after treatment (including treatment in barges) cVOC concentrations in soil and/or sediment exceed the landfill-worker RBCs and/or exhibit a characteristic of hazardous waste (i.e., toxicity, ignitability, corrosivity, and/or reactivity), then the material must be managed as hazardous waste and be disposed of in a Subtitle C land disposal facility.

The Memorandum includes a reference to Section 3.6.3.1 in a footnote on page 1 that states, “This Section also provides direction regarding screening scenarios for sediment containing commingled TCE (and associated degradation products) and MGP-related constituents. The presence or absence of MGP-related materials does not alter the screening scenarios and RBCs for TCE and its degradation products.” DEQ notes there are a number of “screening scenarios” discussed in Section 3.6.3.1. To avoid misunderstandings and for clarification, this letter provides DEQ’s determination regarding the RBCs Siltronic proposes to use for determining whether sediment contaminated only by cVOCs contain a listed hazardous waste. The letter does not discuss material impacted by cVOCs and MGP waste/constituents.

In evaluating the landfill worker exposure scenario, Siltronic apparently relied on telephone discussions with personnel from representative disposal facilities. Although it is unclear whether Siltronic contacted the disposal facility being considered for the Gasco Sediment Project, based on the telephone discussions Siltronic indicates the, “... facilities are specifically designed to minimize and prevent exposure by landfill workers;” and concludes, “... *landfill worker RBCs cannot be developed* (*italics added for emphasis*), as exposure factors specific to landfill workers on which derivation of an RBC is based are minimal.” Based on the information gathered over the telephone, Siltronic proposes using the maximum cVOC RBCs available from DEQ guidance for purposes of evaluating landfill worker exposure (i.e., soil ingestion, dermal contact, and inhalation under an “excavation worker” exposure scenario).

Although not mentioned in the Memorandum, Siltronic’s proposal appears to be based on a number of assumptions, including but not necessarily limited to the following:

- The representative disposal facility contacted by Siltronic will receive contaminated sediments; and
- The generic operational practices and standard contaminated material handling procedures employed at the facility contacted (e.g., transfer from barges to ground transportation, transport to the facility, placement in piles or in the landfill, grading activities, moving from piles to the landfill and re-grading) are directly applicable and adequate for the site-specific requirements of the Gasco Sediment Project.

DEQ believes these assumptions severely limit the evaluation of worker exposure and determines the Memorandum to be deficient as a result. Because Siltronic did not perform a site-specific assessment of landfill worker exposure, the proposal for using excavation worker RBCs is unsupported. Furthermore, Siltronic’s conclusion that landfill worker health-based criteria cannot be developed because the risk of exposure to contaminated sediments is minimal indicates the selection of landfill workers as the group with the highest potential risk of exposure should be revisited. Based on this information, DEQ: 1) does not approve the Memorandum, including Siltronic’s recommendation to use excavation worker RBCs for evaluating whether sediment contaminated only by cVOCs contain F002 listed hazardous waste; and 2) requests that Siltronic modify the recommendation so occupational worker RBCs for soil be used for this purpose.

In addition to DEQ’s comments regarding the Memorandum, EPA prepared comments on the document which are attached.

Tom McCue
Siltronic Corporation
August 29, 2011
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Please call me at (503) 229-5543 if you have questions regarding this letter.

Sincerely,

Dana Bayuk, Project Manager
NWR Cleanup Section

Attachment: EPA June 17, 2011 comments

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